

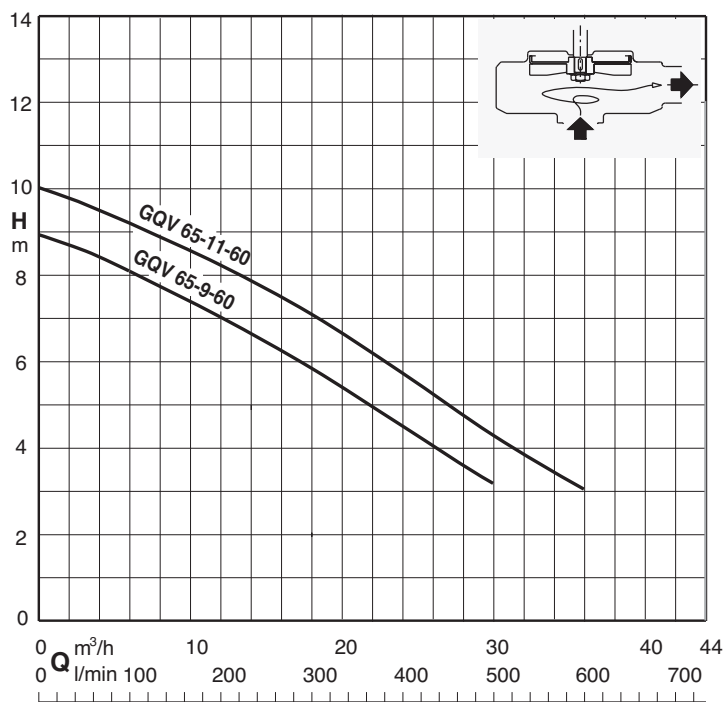
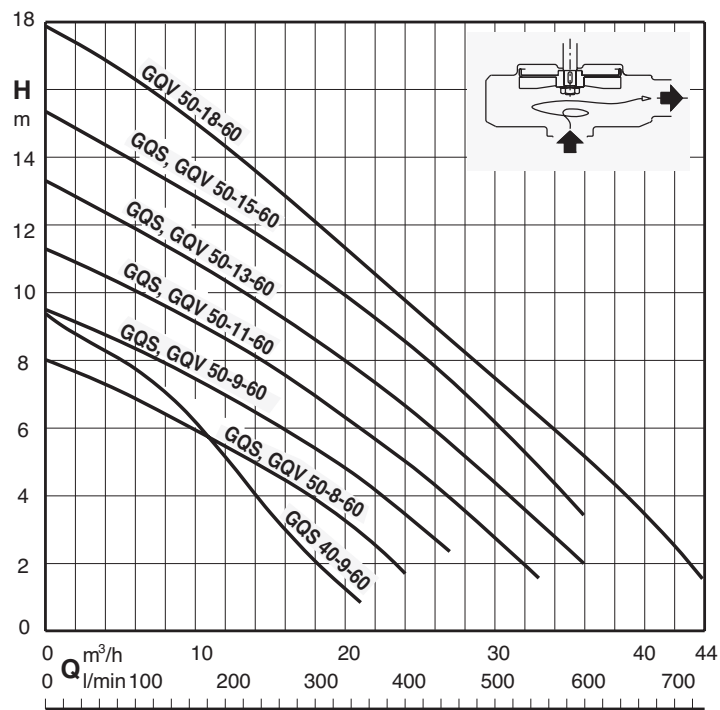
GQV, GQS 60 Hz



(patented system)



Coverage chart $n \approx 3450$ 1/min



Submersible sewage and drainage pumps

GQV, GQS 60 Hz



Construction

Single-impeller submersible pumps, with free-flow (vortex) impeller.

GQS: with threaded vertical delivery port G 1 1/2" or G 2".

GQV: with threaded horizontal delivery port G 2" or G 2 1/2" and flanged DN 50 or DN 65.

Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

For civil and industrial wastewater that is not aggressive to the pump materials, for dirty water even with solids with a diameter of 40, 50, 65 mm.

Emptying of flooded rooms or tanks.

Extraction of water from ponds, streams or pits and for rainwater collection.

Operating conditions

Liquid temperature up to 35° C.

Steam pH: 6-11.

Maximum immersion depth: 5 m.

Minimum immersion depth:

- 200 mm for GQS 40
- 275 mm for GQS, GQV 50).
- 355 mm for GQV 65).

Continuous duty (with submerged motor).

Motor

2-pole induction motor, 60 Hz ($n \approx 3450$ rpm).

GQS, GQV: three-phase 220 V, 380 V, 440 V.

Cable: H07RN-F, 4G1 mm², length 10 m, without plug.

GQSM, GQVM: single-phase 110 V, 127 V, 220 V.

with float switch and thermal protector only 220 V.

Incorporated capacitor only 220V.

Cable: H07RN-F, 3G1 mm², length 10 m, with plug CEI-UNEL 47166.

Insulation class F.

Protection IP X8 (for continuous immersion).

Dry winding with triple moisture-resistant impregnation (double for GQS 40).

Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.

Other mechanical seal.

Cable length 20 m.

Motor set up for operation with inverter.

Three-phase pumps with built-in switch and float.

Designation

Example: GQSM 40-9-60

GQ = Series

S = Horizontal Vortex impeller V = Vertical Vortex impeller

M = Single-phase (without three-phase indication)

40 = Free passage diameter in mm

9 = Total head in m indoors

60 = Frequency 60 Hz

Materials

Components	Materials
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561, Steel 1.4301 EN 10088 (AISI 304) for GQS 40
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of 1.4301 EN 10088 (AISI 304))
Shaft	Steel 1.4301 EN 10088 (AISI 304), Steel 1.4305 EN 10088 (AISI 303) per GQS 40
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

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Performance n ≈ 3450 1/min

Three-phase

Model	400V			Q = Flow									
	P2			m³/h	0								
	A	kW	HP	l/min	1,5	3	6	9	12	15	18	21	
GQS 40-9-60	2	0,45	0,6		9,4	9	8,6	7,8	6,7	5,1	3,5	2	0,8

Model	400V			Q = Flow																
	P2			m³/h	0															
	A	kW	HP	l/min	3	6	9	12	15	18	21	24	27	30	33	36	39	42	44	
GQS 50-8-60	1,9	0,55	0,75		8	7,5	7	6,3	5,6	4,8	4	3	1,8	-	-	-	-	-	-	-
GQS 50-9-60	2,4	0,75	1		9,5	9	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-	-	-	-
GQS 50-11-60	2,7	0,9	1,2		11,3	10,7	10	9,3	8,5	7,5	6,7	5,8	4,5	3,8	2,7	1,5	-	-	-	-
GQS 50-13-60	3,2	1,1	1,5		13,3	12,5	11,8	11	10,3	9,5	8,5	7,5	6,5	5,5	4,2	3	1,8	-	-	-
GQS 50-15-60	5	1,5	2		15,5	14,8	14	13,3	12,5	11,5	10,5	9,5	8,5	7,4	6,2	4,8	3,5	-	-	-
GQV 50-8-60	1,9	0,55	0,75		8	7,5	7	6,3	5,6	4,8	4	3	1,8	-	-	-	-	-	-	-
GQV 50-9-60	2,4	0,75	1		9,5	9	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-	-	-	-
GQV 50-11-60	2,7	0,9	1,2		11,3	10,7	10	9,3	8,5	7,5	6,7	5,8	4,5	3,8	2,7	1,5	-	-	-	-
GQV 50-13-60	3,2	1,1	1,5		13,3	12,5	11,8	11	10,3	9,5	8,5	7,5	6,5	5,5	4,2	3	1,8	-	-	-
GQV 50-15-60	5	1,5	2		15,5	14,8	14	13,3	12,5	11,5	10,5	9,5	8,5	7,4	6,2	4,8	3,5	-	-	-
GQV 50-18-60	6,7	2,6	3,5		18	17,2	16,3	15,4	14,3	13,3	12,1	11	9,8	8,6	7,5	6,4	5,2	3,9	2,6	1,5

Model	400V			Q = Flow							
	P2			m³/h	0						
	A	kW	HP	l/min	6	12	18	24	30	36	
GQV 65-9-60	3,2	1,1	1,5		8,9	8,1	7	5,8	4,5	3,2	-
GQV 65-11-60	5	1,5	2		10	9,2	8,2	7,1	5,7	4,3	3

Single-phase

Model	230V		Capacitor		P2		Q = Flow								
	A	Vc	uf	kW	HP	m³/h	0								
						l/min	1,5	3	6	9	12	15	18	21	
GQSM 40-9-60	4,5	450	20	0,45	0,6		9,4	9	8,6	7,8	6,7	5,1	3,5	2	0,8

Model	230V		Capacitor		P2		Q = Flow												
	A	Vc	uf	kW	HP	m³/h	0												
						l/min	3	6	9	12	15	18	21	24	27	30	33	36	
GQSM 50-8-60	5,5	450	16	0,55	0,75		8	7,5	7	6,3	5,6	4,8	4	3	1,8	-	-	-	-
GQSM 50-9-60	6	450	16	0,75	1		9,5	9	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-
GQSM 50-11-60	7	450	25	0,9	1,2		11,3	10,7	10	9,3	8,5	7,5	6,7	5,8	4,5	3,8	2,7	1,5	-
GQSM 50-13-60	9,6	450	30	1,1	1,5		13,3	12,5	11,8	11	10,3	9,5	8,5	7,5	6,5	5,5	4,2	3	1,8
GQSM 50-15-60	13	450	35	1,5	2		15,5	14,8	14	13,3	12,5	11,5	10,5	9,5	8,5	7,4	6,2	4,8	3,5

Model	230V		Capacitor		P2		Q = Flow												
	A	Vc	uf	kW	HP	m³/h	0												
						l/min	3	6	9	12	15	18	21	24	27	30	33	36	
GQVM 50-8-60	5,5	450	16	0,55	0,75		8	7,5	7	6,3	5,6	4,8	4	3	1,8	-	-	-	-
GQVM 50-9-60	6	450	16	0,75	1		9,5	9	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-
GQVM 50-11-60	7	450	25	0,9	1,2		11,3	10,7	10	9,3	8,5	7,5	6,7	5,8	4,5	3,8	2,7	1,5	-
GQVM 50-13-60	9,6	450	30	1,1	1,5		13,3	12,5	11,8	11	10,3	9,5	8,5	7,5	6,5	5,5	4,2	3	1,8
GQVM 50-15-60	13	450	35	1,5	2		15,5	14,8	14	13,3	12,5	11,5	10,5	9,5	8,5	7,4	6,2	4,8	3,5

Model	230V		Capacitor		P2		P1		Q = Flow					
	A	Vc	uf	kW	HP	kW	m³/h	0						
							l/min	6	12	18	24	30	36	
GQVM 65-9-60	9,6	450	30	1,1	1,5	2,25		8,9	8,1	7	5,8	4,5	3,2	-
GQVM 65-11-60	13	450	35	1,5	2	2,54		10	9,2	8,2	7,1	5,7	4,3	3

P1: Maximum power input.

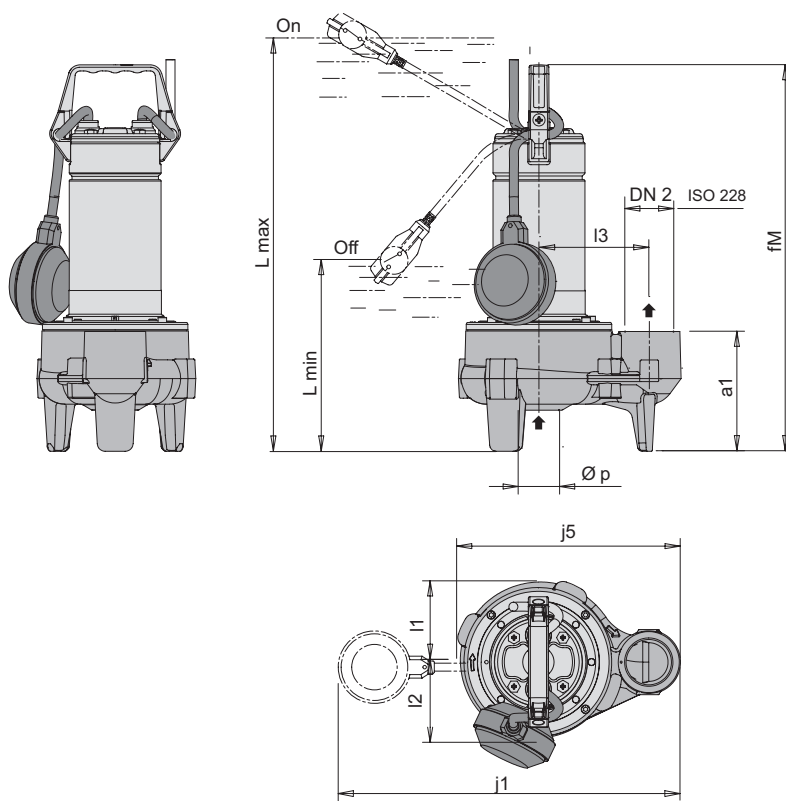
P2: Rated motor power output.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$. Total head in m

GQV, GQS 60 Hz



Dimensions and weights



TYPE	ISO 228	mm							kg
	DN2	a1	fM	j5	l1	l2	l5	p	Weight
GQS 40-9-60	G1 1/2	120	385	222	78	81	110	40	10

TYPE	ISO 228	mm									kg	
	DN2	a1	fM	j1	j5	l1	l2	l5	Lmax	Lmin	p	Weight
GQSM 40-9-60	G1 1/2	120	385	410	222	78	81	110	460	200	40	10.9

TYPE	ISO 228	mm							kg
	DN2	a1	fM	j5	l1	l2	l5	p	Weight
GQS 50-8-60	G 2	145	460	264	89	94	130	50	15.9
GQS 50-9-60	G 2	145	460	264	89	94	130	50	15
GQS 50-11-60	G 2	145	485	264	89	94	130	50	16
GQS 50-13-60	G 2	145	505	264	89	94	130	50	17.5
GQS 50-15-60	G 2	145	505	264	89	94	130	50	18.9

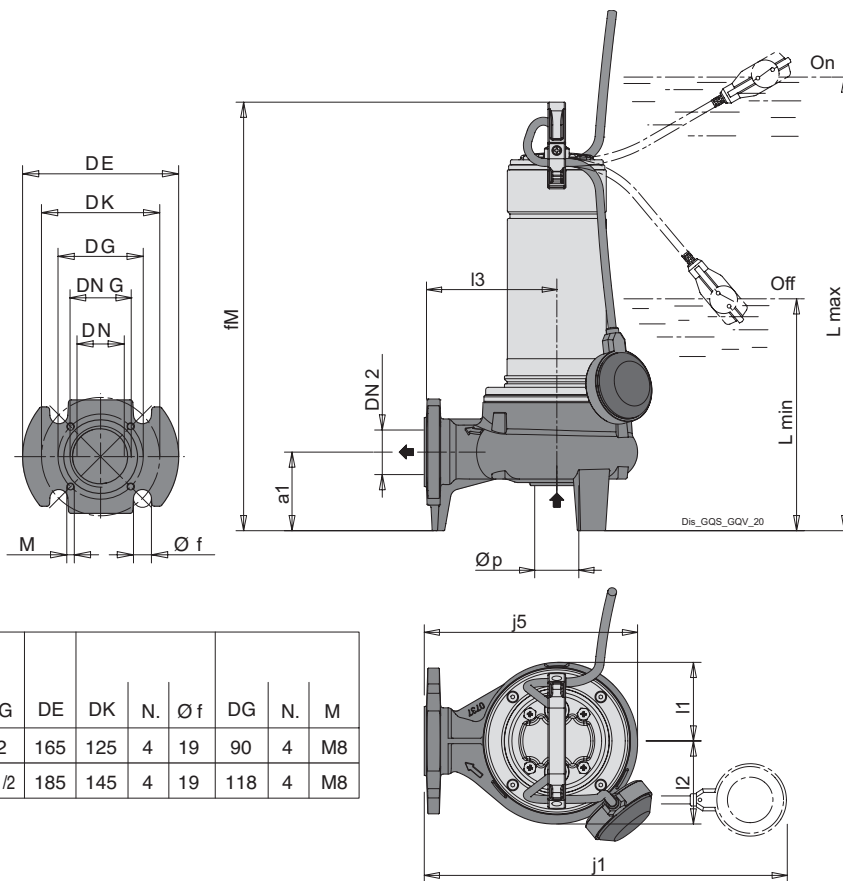
TYPE	ISO 228	mm									kg	
	DN2	a1	fM	j1	j5	l1	l2	l5	Lmax	Lmin	p	Weight
GQSM 50-8-60	G 2	145	460	452	264	89	94	130	535	275	50	15.9
GQSM 50-9-60	G 2	145	460	452	264	89	94	130	535	275	50	16
GQSM 50-11-60	G 2	145	485	452	264	89	94	130	560	300	50	18
GQSM 50-13-60	G 2	145	505	452	264	89	94	130	580	320	50	19
GQSM 50-15-60	G 2	145	535	452	264	89	94	130	610	350	50	21.8

weights With cable length: 10 m

GQV, GQS 60 Hz



Dimensions and weights



DN	DN G	DE	DK	N.	Ø f	DG	N.	M
50	G 2	165	125	4	19	90	4	M8
65	G 2 1/2	185	145	4	19	118	4	M8

TYPE	DN2	mm								kg
		a1	fM	l1	l2	l5	l5	p	s	Weight
GQV 50-8-60	G 2 (DN50)	90	460	89	94	150	242	50	19 (M8)	15
GQV 50-9-60	G 2 (DN50)	90	460	89	94	150	242	50	19 (M8)	15.2
GQV 50-11-60	G 2 (DN50)	90	485	89	94	150	242	50	19 (M8)	16
GQV 50-13-60	G 2 (DN50)	90	505	89	94	150	242	50	19 (M8)	18.1
GQV 50-15-60	G 2 (DN50)	90	505	89	94	150	242	50	19 (M8)	20
GQV 50-18-60	G 2 (DN50)	90	642	89	94	150	242	50	19 (M8)	-

TYPE	DN2	mm								kg
		a1	fM	l1	l2	l5	l5	p	s	Weight
GQV 65-9-60	G 2 1/2 (DN65)	110	540	100	105	150	253	65	19 (M8)	20.2
GQV 65-11-60	G 2 1/2 (DN65)	110	540	100	105	150	253	65	19 (M8)	21.6

TYPE	DN2	mm											kg
		a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	s	Weight
GQVM 50-8-60	G 2 (DN50)	90	460	430	89	94	150	242	535	275	50	19 (M8)	16.1
GQVM 50-9-60	G 2 (DN50)	90	460	430	89	94	150	242	535	275	50	19 (M8)	16.5
GQVM 50-11-60	G 2 (DN50)	90	485	430	89	94	150	242	560	300	50	19 (M8)	-
GQVM 50-13-60	G 2 (DN50)	90	505	430	89	94	150	242	580	320	50	19 (M8)	19.5
GQVM 50-15-60	G 2 (DN50)	90	535	430	89	94	150	242	610	350	50	19 (M8)	22.4

TYPE	DN2	mm											kg
		a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	s	Weight
GQVM 65-9-60	G 2 1/2 (DN65)	110	540	430	100	105	150	253	615	355	65	19 (M8)	21.7
GQVM 65-11-60	G 2 1/2 (DN65)	110	570	430	100	105	150	253	645	385	65	19 (M8)	24.2

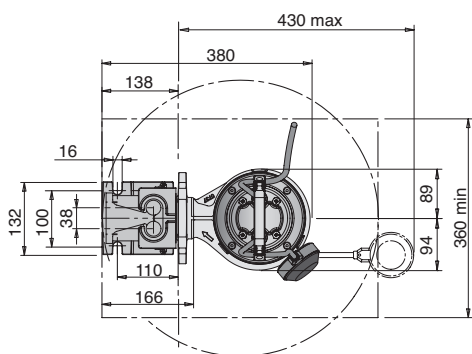
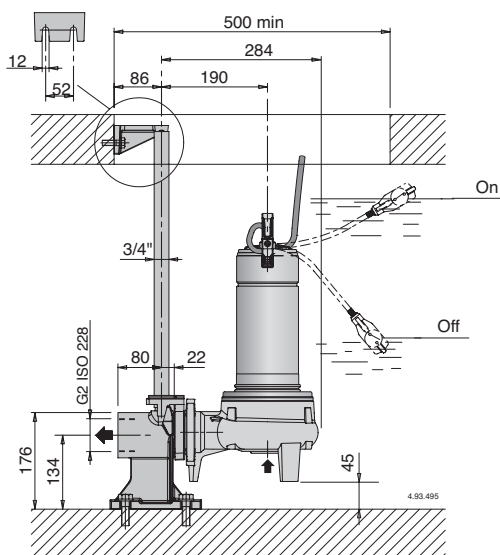
weights With cable length: 10 m

GQV, GQS 60 Hz

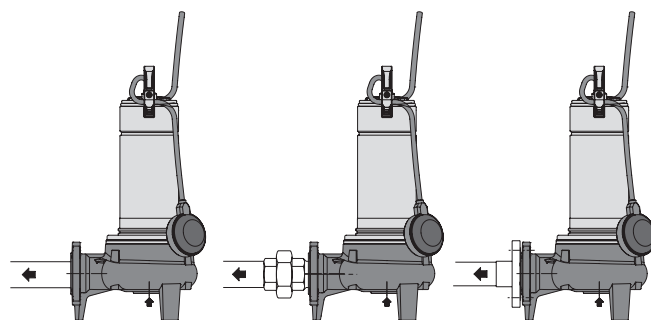
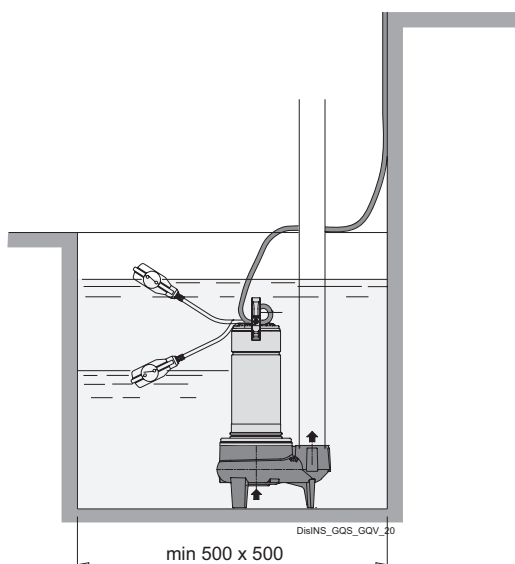
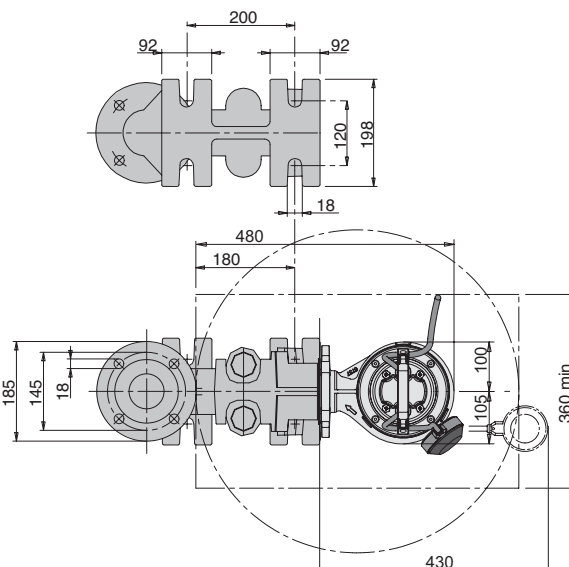
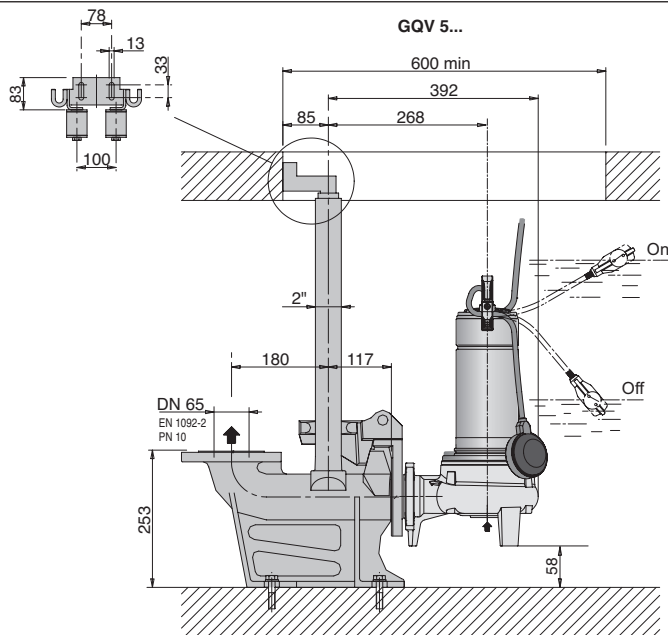


Examples of installations

GQV 50...



GQV 5...



Pump with threaded ports: pipes screwed into the ports
 Pump with threaded ports: pipes with union couplings (locally available)
 Pompa con bocca flangiata: tubo con controflangia